WHAT IS CLAIMED IS:

1. A fabricating method for zinc phosphate insulation on a varistor, wherein the varistor has a body with two outer terminals formed on two opposite ends of the body and an exposed surface, the fabricating method comprising:

applying and depositing a phosphate compound on the surface of the body, wherein an over-saturated phosphate liquor is kept at a high temperature to deposit a phosphate compound;

heating the phosphate compound until the phosphate compound turns to a transparent insulation; and

applying metal materials on the two outer terminals of the body, wherein the outer terminals of the body uncovered by the insulation electroplates metal material on it; wherein the transparent insulation has an anti-etch feature for the electrolyte to keep the exposed surface of the body smooth.

2. The fabricating method as claimed in claim 1, wherein the method further comprises a removing transparent insulation step after the electroplating step to expose the surface of the body.

3. The fabricating method as claimed in claim 2, wherein the method further comprises applying a protective coating step after the removing transparent insulation step to form a protective coating on the surface of the body.

4. The fabricating method as claimed in claim 1, wherein the method further comprises an applying protective coating step to from a protective coating on the insulation after the electroplating step to protect the surface of the body.

5. The fabricating method as claimed in claim 1, wherein the material metal comprises at least one base layer and at least one solder layer sequentially formed on

each outer terminal.

6. The fabricating method as claimed in claim 1, wherein the over-saturated phosphate liquor consists of phosphate ions, zinc ions, inorganic ions and metal ions.

7. The fabricating method as claimed in claim 1, wherein the applying the two outer terminals of the body step comprises electroless plating process, spray plating process rolling plating process or barrel electroplating process.

8. The varistor fabricated by the method in claim 1 comprising:

a body having

an exposed surface; and

two opposite ends.

two outer terminals formed on the two opposite ends and having an outer face; and

insulation formed on the exposed surface to prevent the exposed surface of the body from being etched by the electrolyte in an electroplating process and to prevent metal material from being electroplated on the exposed surface of the body.

9. The varistor as claimed in claim 8, wherein the varistor further comprises a protective coating formed on the insulation.

10. The varistor as claimed in claim 8, wherein the varistor further comprises at least one base layer formed on the outer face and at least one solder layer formed on the base layer.

11. The varistor as claimed in claim 8, wherein the protective coating is an organic material coating such as acrylic polymer, polyester or epoxy polymer.

12. The varistor as claimed in claim 8, wherein the base layer is copper.

13. The varistor as claimed in claim 8, wherein the base layer is nickel.

14. The varistor as claimed in claim 8, wherein filler in the body is an oxide semiconductor of zinc oxide and other metal oxides.